November 2003
FACT SHEET
Bureau of Indian Affairs - Ojo Encino
NPDES Permit No. NM0020915

I. Introduction

The U.S. Bureau of Indian Affairs-Eastern Navajo Agency ("BIA") was issued an NPDES Permit (NM0020958) on September 30, 1998, for the discharge from the BIA Ojo Encino Day School wastewater treatment lagoon. The permit became effective on September 30, 1998 and expired on October 31, 2003. The facility is not considered a publicly-owned treatment works (POTW) because it is a federal facility. A draft application for continued coverage of the NPDES permit had been submitted to EPA on October 1, 2003.

Applicant Address: Navajo Regional Office
Bureau of Indians Affairs
U.S. Department of Interior
P.O. Box 1060
Gallup, New Mexico 87305

Applicant Contact: Jean Romancito, Environmental Protection Specialist
(505) 863-8330

Facility Address: BIA Ojo Encino Day School
P.O. Box 7
Cuba, New Mexico 87013

Facility Contact: Valentino Lincoln
(505) 731-2333

II. Background

The BIA Ojo Encino Day School wastewater treatment lagoon is located in Ojo Encino in McKinley County of New Mexico, on public domain land administered by the Bureau of Land Management ("BLM") within the eastern portion of the Navajo Nation. The facility serves a population of about 250 (students, personnel, visitors and residents), receiving only domestic sewage with a design flow of 0.008 million gallons per day ("MGD".) The facility is a one-cell facultative lagoon system. Wastewater from the collection system flows by gravity to the lagoon from the school and chapter house compounds, and a health clinic. There currently is no pretreatment or aeration of the wastewater, but aerators were previously used. Effluent will be discharged intermittently through a 10-inch overflow pipe to Outfall No. 001. Although the cell is used for settling

and natural die-off of fecal coliform bacteria, discharges will receive chlorination at the outfall. A discharge from Outfall No. 001 would flow to an unnamed dry wash, a tributary to the Encino Wash, a tributary to the Torreon Wash, a tributary to the Arroyo Chico, a tributary to Rio Puerco, an eventual tributary to the Rio Grande River. (The previous permit listed the San Juan River Basin as the receiving water.) Any sampling and monitoring under the proposed permit shall be performed at Outfall No. 001.

Environmental Dimensions, Inc., a contractor hired by the BIA to prepare the permit application made a visit to the facility on September 12, 2003, and noted that there was no flow at the discharge nor in the receiving waters for several hundred yards downstream, a condition which the BIA believes is attributable to local weather patterns suffering from a long-term drought in the region. The contractor noted that one cell was approximately three-quarters full, while Cell 2 was wet but had no standing water. The contractor further noted that although the vegetation around the first cell appeared thick and to be in need of trimming, it did not appear to be affecting the functionality of the lagoon. Vegetation was lush and appeared healthy and evidence of local wildlife, aquatic and terrestrial was observed. There have been no modification or improvements made to the system since the previous permit issuance.

EPA has determined that due to the volume, frequency, type, and location of discharge, effluent released in accordance with this permit will have no adverse effect on threatened or endangered species in the area so no requirements specific to the protection of endangered species are in the proposed permit. A copy of the permit and fact sheet is being sent to U.S. Fish and Wildlife Service for review during the public comment period.

III. Navajo Nation Surface Water Quality Standards

Pursuant to the Water Quality Act of 1987 and the "EPA Policy for the Administration of Environmental Programs on Indian Reservations" (November 8, 1987), EPA will work directly with Indian Tribal governments on a one-to-one basis. This conforms with the Federal Indian Policy of January 24, 1983. The Navajo Nation has received Treatment as a State ("TAS") for Section 106 of the Clean Water Act ("CWA".) They have applied but have not received TAS for the purposes of Section 303 of the CWA. Section 106 grant money was used to develop water quality standards and use designations, which must be approved under Section 303 by EPA Region 9. The Navajo Nation completed and adopted the Navajo Nation Surface Water Quality Standards ("NNSWQS") on September 7, 1999 and promulgated in November 1999. The NNSWQS, along with a TAS application under Section 303, was submitted to EPA in November 1999. A draft revision to the NNSWQS made on April 17, 2003 is awaiting review and approval by the Navajo Nation Council. In the interim until the NNSWQS are approved by EPA, those water quality standards will be used on a best professional judgment basis for purposes of developing water quality based effluent limitations.

IV. Basis of Proposed Permit Requirements

The proposed discharge limitations are based upon:

A. Secondary Treatment Regulations contained in 40 CFR Part 133, Sections 133.101 through 133.105, promulgated September 20, 1984, and most recently amended on January 27, 1989.

B. NNSWQS, which was promulgated by the Navajo Nation Council in November 1999.

C. State of New Mexico--Standards for Interstate and Intrastate Stream, effective January 23, 1995.

D. State of New Mexico--Water Quality Management Plan, Work Element 6-Point Source Load Allocation, update of September 1989.

V. Designated Uses of the Receiving Water

The designated uses for receiving water (Encino Wash, a tributary to the Torreon Wash, a tributary to the Arroyo Chico, a tributary to Rio Puerco, a tributary to the Rio Grande River) are not currently defined by the NNSWQS. The ephemeral receiving water is also unclassified by the New Mexico water quality standards, but is protected for the uses of livestock watering and wildlife habitat (1105.A)

VI. Determination of Effluent Limitations, Monitoring and Reporting Requirements

A. Flow Rates

Under the proposed permit, there is no flow limit but the monthly and daily maximum flows must be monitored and reported. The monitoring frequency is once/week, consistent with the previous permit. The previous permit had flow limits.

B. Five-Day Biochemical Oxygen Demand (BOD_5)

Under the proposed permit, the discharge shall not exceed a monthly average of 45 mg/l and a weekly average of 65 mg/l, and shall achieve no less than a monthly average rate of 65% removal. These limits are required under 40 CFR Sections 133.105(a) and 133.105(d). The limits are designated as 30-day and 7-day averages since the facility operates similarly to a POTW [40 CFR 122.45(d)]. These limits are the same as those in the previous permit.

Under 40 CFR Section 122.45(f), mass limits are required for BOD_5. Based upon the 0.008 MGD flow, the mass limits for BOD_5 are based on the following calculations:

Monthly average

$$\frac{0.008\ \text{MG}}{\text{day}} \times \frac{45\ \text{mg}}{\text{l}} \times \frac{8.345\ \text{lb/MG}}{1\ \text{mg/l}} \times \frac{0.45\ \text{kg}}{\text{lb}} = 1.4\ \text{kg/day}$$

Weekly average

$$\frac{0.008\ \text{MG}}{\text{day}} \times \frac{65\ \text{mg}}{\text{l}} \times \frac{8.345\ \text{lb/MG}}{1\ \text{mg/l}} \times \frac{0.45\ \text{kg}}{\text{lb}} = 2.0\ \text{kg/day}$$

The monitoring frequency is once/week. These limits are identical to those in the previous permit.

C. Total Suspended Solids (TSS)

Under the proposed permit, the discharge shall not exceed a weekly average of 135 mg/l and monthly average of 90 mg/l TSS, and shall achieve no less than a monthly average rate of 65% removal. These limitations ("Alternative State Requirements") are Best Professional Judgment technology-based limits and consistent with 40 CFR Part 133 Sections 103(c), and 105(b)(3) and (d). Mass limit requirements in accordance with 40 CFR 122.45(f) have also been set in the proposed permit. Mass loadings are based upon the same calculation shown above for BOD_5 and shall not exceed a 7-day average of 4.1 kg/day and a monthly average of 2.7 kg/day for TSS. The monitoring frequency is once/week.

D. Fecal Coliform

The proposed permit establishes that the monthly logarithmic mean of fecal coliform bacteria shall not exceed 500/100 ml and no single sample shall exceed 500/100 ml. These limits are based on point source load allocations in the New Mexico water quality management plan [Work Element 6(C)(1).] The monitoring frequency is once/week.

E. Total Residual Chlorine (TRC)

The proposed permit requires chlorination of the effluent before discharge. During chlorination of the intermittent discharges, no sample shall exceed 1.0 mg/l of chlorine. This limit is based on Best Professional Judgment and should assure that New Mexico water quality standards for wildlife habitat use is met in the receiving water when

aquatic life is present (3101.L.3). The monitoring frequency is once/week for the effluent and once/month in the receiving water. This is a new limit to the proposed permit.

F. Ammonia (as un-ionized NH_3)

The proposed permit establishes a monitoring requirement for ammonia. The monitoring frequency is once/quarter. If analytical results for the first four quarters reveal ammonia levels are below the EPA's National Water Quality Criteria for ammonia, the monitoring frequency will decrease to once/year. The regulations at 40 CFR 122.44(i) allow requirements for monitoring as determined to be necessary. If analytical results for the first four quarters reveal ammonia levels are below for ammonia, the monitoring frequency will decrease to once/year.

G. Total Dissolved Solids (TDS)

The proposed permit requires monitoring and reporting of both the influent and effluent TDS. The monitored frequency is once/quarter. The regulations at 40 CFR 122.44(i) allow requirements for monitoring as determined to be necessary. This is a new requirement for the proposed permit.

H. pH

The proposed permit requires that effluent pH not fall below 6.5 or above 9.0 standard pH units, consistent with the point source load allocations in the New Mexico water quality management plan [Work Element 6 (C)(1).] The monitoring frequency is once/week.

VII. Reporting

The proposed permit requires discharge data obtained during the previous three months to be summarized and reported monthly. If there is no discharge for the month, indicate "Zero Discharge." These reports are due January 28, April 28, July 28, and October 28 of each year. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the EPA Regional Administrator and the Navajo Nation EPA.

VIII. General Standards

The proposed permit sets general standards that are contained in Standards for Interstate and Intrastate Streams in New Mexico (Part 1102). These general standards restrict the following parameters:

Stream bottom deposits	Toxic substances
Floating solids, oil and grease	Temperature
Color	Turbidity

Odor and taste of fish
Salinity
Plant nutrients
Pathogens
Dissolved gases

The general standards are set forth in Section B (“General Discharge Specifications”) of the permit.

IX. Permit Reopener

At this time, there is no reasonable potential to establish any other water quality-based limits. Should any monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. The proposed permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards.

X. Biosolids Requirements

The permittee shall submit a report 60 days prior to disposal of biosolids. The report shall discuss the quantity of biosolids produced, the treatment applied to biosolids including process parameters, disposal methods, and, if land applied, analyses for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Zinc, and Selenium, and for organic-N, ammonium-N, and nitrate-N, all expressed in mg/kg biosolids on a 100% dry weight basis. The permittee shall comply with all standards for biosolids use and disposal of Section 405(d) of the CWA, and 40 CFR Parts 257, 258 and 503.

XI. Endangered Species Act

EPA has determined that discharge in compliance with this permit will have no effect on threatened or endangered species.

XII. Written Comments

Persons who wish to comment upon, object to the proposed action, or request a public hearing pursuant to 40 CFR Section 124.11 should submit their comments and requests in writing within thirty (30) days from the date of the Public Notice, either in person or by mail to:

U.S. Environmental Protection Agency, Region IX

CWA Standards and Permits Office (WTR-5)
Attn: Linh Tran
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3511

XIII. Information and Copying

The Administrative Record, which contains the draft NPDES permit, the fact sheet, comments received, and other relevant documents, is available for review and may be obtained by calling or writing to the above address.

All comments or objections received within thirty (30) days from the date of the Public Notice, will be retained and considered in the formulation of the final determination regarding the permit issuance.

XIV. Public Hearing

When public interest warrants, the Regional Administrator shall hold a public hearing and such notice of hearing shall be issued by public notice at least thirty (30) days prior to the hearing date. A request for a public hearing must be in writing and must also state the nature of the issue proposed to be raised in the hearing.